

Patent claims

1. A conveyor dishwasher having at least one washing zone (3, 4), at least one rinsing zone (5, 6), a drying zone (7), a suction-extraction location (23) for an exhaust-air stream (24) and a transporting device (21) for conveying wash ware (10) in the transporting direction (9) through the conveyor dishwasher, characterized in that the exhaust-air stream (24) is produced the dishwasher counter to the transporting direction (9) of the wash ware (10) through the dishwasher by regulated action on flow from the drying zone (7) and/or the washing zone (3, 4).
2. The conveyor dishwasher as claimed in claim 1, characterized in that the suction-extraction location (23) for extracting the exhaust-air stream (24) by suction is arranged in the region of an inlet (1) of the dishwasher.
3. The conveyor dishwasher as claimed in claim 1, characterized in that a drying fan (19) is arranged in the drying zone (7) and has pivotably designed exit nozzles (26) assigned to it.
4. The conveyor dishwasher as claimed in claim 3, characterized in that volumes of exhaust air (28, 33) passing out of the drying zone (7) are dependent on the position (34, 35) of the exit nozzles (26).
5. The conveyor dishwasher as claimed in claim 4, characterized in that, in the first position (34) of the pivotably arranged exit nozzles (26) within the drying zone (7), the dishwasher can be operated without clouds of steam at the inlet (1) and outlet (22).
6. The conveyor dishwasher as claimed in claim 4, characterized in that a second quantity of air (33) which can be channeled away out of the drying zone (7) can be varied in dependence on the pivoting position (29, 35) of the exit nozzles (26) of the drying fan (19).
7. The conveyor dishwasher as claimed in claim 1, characterized in that a deflecting surface (41) is accommodated in the region of the drying zone (7), beneath the exit nozzles (26).

8. The conveyor dishwasher as claimed in claim 7, characterized in that the deflecting surface (41) is of essentially horizontal design and runs beneath the device (21) for transporting the wash ware (10).

5 9. The conveyor dishwasher as claimed in claim 1, characterized in that the drying zone (7) is assigned a separating curtain (13) on the outlet side, as seen in the transporting direction (9) of the wash ware (10), and this separating curtain bounds an intake opening (39) via which an external-air stream (31) can be taken into the drying zone (7).

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10. The conveyor dishwasher as claimed in claim 1, characterized in that the capacity of a fan (12) of the heat-recovery device (11) is dependent on a quantity of air (28, 33) which can be channeled away out of the drying zone (7).

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11. The conveyor dishwasher as claimed in claim 1, characterized in that the exhaust-air stream (24) which is extracted via the suction-extraction location (23) corresponds to the external-air streams (31, 32) which are taken in via the intake openings (39, 40).

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12. The conveyor dishwasher as claimed in claim 4, characterized in that the exit nozzles (26) within the drying zone (7) can be adjusted by electromotive, pneumatic or hydraulic means or mechanically via levers.

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13. The conveyor dishwasher as claimed in claim 1, characterized in that the exit nozzles (26) can be adjusted in the pivoting direction (29) during operation of the conveyor dishwasher.

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14. The conveyor dishwasher as claimed in claim 1, characterized in that the exhaust-air stream (24) is regulated by means of a speed-regulated fan (12) assigned to the heat-recovery device (11).

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15. The conveyor dishwasher as claimed in one or more of the preceding claims, characterized in that the position (34, 35) of the exit nozzles (26) and/or the capacity of the fan (12) of the heat-recovery device (11) are/is regulated in dependence on operating states of the dishwasher and/or on the following process parameters: temperature (τ), moisture content (x) in the drying zone (7) or at the inlet (1) and outlet (8).

16. The conveyor dishwasher as claimed in claim 15, characterized in that the regulation of the manipulated-variable position (34, 35) of the exit nozzles (26) and/or the capacity of the drive of the fan (12) are/is regulated in dependence on wash ware (10) which is present in the drying zone (7), on the moisture content (x) of the hot air which is circulating in the drying zone (7) and/or on the temperature (τ) prevailing in the drying zone (7).